

**METHOD AND SYSTEM FOR USING ULTRASOUND  
IN CARDIAC DIAGNOSIS & THERAPY**

**ABSTRACT**

A method and system for estimating the volume of blood ejected from  
5 the left ventricle of the heart to a succeeding chamber/conduit, or vice-versa,  
while imaging the intersection of such structures is described. The process  
utilizes either the M-mode to estimate volume differences in a view of the  
ventricle over time or Doppler processing techniques to obtain flow profiles  
across intersections (e.g., valves), or blood vessels, which are then utilized to  
10 calculate output. This process can be combined with ECG  
guidance/triggering to measure/track changes in output from beat to beat, or  
during the course of an evaluation or therapeutic procedure. This process  
can be specifically used for the placement of permanent pacemaker  
electrodes.